



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/564,764

01/17/2006

Dale Scott Marion

75145-5(KB)

1490

35222 7590 09/21/2007

LANG MICHENER
BCE PLACE, P.O. BOX 747
SUITE 2500, 181 BAY STREET
TORONTO, ON M5J 2T7
CANADA

EXAMINER

NGUYEN, PHU K

ART UNIT

PAPER NUMBER

2628

MAIL DATE

DELIVERY MODE

09/21/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/564,764	Applicant(s) MARION, DALE SCOTT	
	Examiner Phu K. Nguyen	Art Unit 2628	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 January 2006.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-9 and 13-24 is/are rejected.
7) ☒ Claim(s) 10-12 is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.


Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.


PHU K. NGUYEN
PRIMARY EXAMINER
GROUP 2300

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>3/15/06</u> | 6) <input type="checkbox"/> Other: _____ |

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 7-9, 13, 17-24 are rejected under 35 U.S.C. 102(e) as being anticipated by McNelley et al. (6,481,851).

As per claim 1, McNelley teaches the claimed "method of creating a final image which, when displayed at a target location, is perceived by viewers as being three dimensional", comprising the steps of: "(i) selecting a target location for the display at a display site" (McNelley, column 12, lines 42-59); "(ii) capturing video of at least one object to be displayed in the final image, the at least one object moving in the video at a necessary perceptual speed by translating generally along a plane extending through the eyes of expected viewers and/or rotating generally about an axis perpendicular to said plane" (McNelley, column 12, line 42 to column 13, line 4); "(iii) displaying the final image at the site onto a transparent screen positioned such that the final image appears at the target location in front of a background and such that the movement of the at

least one object at the perceptual speed occurs" (McNelley, figure 14).

Claim 7 adds into claim 1 "surveying the display site to identify and characterize light sources and objects which would result in visual highlights on a object displayed at the target location and in step (ii) the video of the at least one object to be displayed is captured under a recreation of the characterized light sources and objects surveyed at the target location" (McNelley, column 11, lines 46-58).

Claims 8-9, and 13 add into claim 1 "capturing a wide angle photograph of the display site about the target location and applying the captured wide angle photograph as a reflection map to the captured video of the at least one object to create the final image wherein a panoramic photograph is captured" (McNelley, column 19, lines 30-50).

Claim 17 adds into claim 1 "the necessary perceptual speed of the at least one object is translation movement across the display along the plane of the expected viewers eyes" (McNelley, column 9, lines 21-65).

Claim 18 adds into claim 1 "the necessary perceptual speed of the at least one object is a combination of translational movement and rotational movement" (McNelley,

column 9, lines 21-65).

Claim 19 adds into claim 1 "the background is a moving background image behind the screen and the necessary perceptual speed is the relative speed difference between the movement of the at least one object and the speed of the moving background image" (McNelley, column 11, line 59 to column 12, line 59).

Claims 20-23 claim a system based on the method of claims 1, 7-9, 17-19, therefore, they are rejected under the same reason.

As per claim 24, McNelley teaches the claimed "method of having the human visual perception system perceive an observed image of at least one object on a two dimensional display at a target location as a three dimensional image", comprising the steps of: "(i) moving the at least one object in the image such that a point on the at least one object along a plane of the expected viewers eyes occurs at a perceptual speed" (McNelley, column 12, lines 42-59); "(ii) applying visual highlights to the at least one object in the image, the visual highlights including specular highlight and shadows appropriate for the object at the target location" (McNelley, column 12, line 42 to column 13, line 4); "(iii) obtaining a wide angle image of the surroundings of the target location and applying this wide angle image as a reflection map to the final image of the at least

one object" (McNelley, figure 14).

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2-6, 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over McNelley et al. (6,481,851).

Claim 2 adds into claim 1 "the perceptual speed is in the range of from about 0.8% to about 10% of the size of the at least one object" which McNelley does not explicitly teach. However, given McNelley's synchronization of video content and the EACB states (McNelley, column 10, lines 12-24), it would have been obvious to set up a perceptual speed in a certain range because Applicant's disclosure does not provide any specific advance for such set up, therefore, such set up is regarded as a mere design choice .

Claim 3 adds into claim 2 "for rotation of the at least one object, the perceptual speed is in the range of from about 1% to about 8% of the size of the at least one object" (McNelley, column 10, lines 12-24).

Claim 4 adds into claim 3 “for rotation of the at least one object, the perceptual speed is in the range of from about 3% to about 5% of the size of the at least one object” (McNelley, column 10, lines 12-24).

Claim 5 adds into claim 1 “for translation of the at least one object, the perceptual speed is in the range of from about 3% to about 12% of the size of the at least one object ” which McNelley does not explicitly teach. However, given McNelley’s synchronization of video content and the EACB states (McNelley, column 10, lines 12-24), it would have been obvious to set up a perceptual speed in a certain range because Applicant’s disclosure does not provide any specific advance for such set up, therefore, such set up is regarded as a mere design choice .

Claim 6 adds into claim 5 “for translation of the at least one object, the perceptual speed is in the range of from about 4% to about 6% of the size of the at least one object” (McNelley, column 10, lines 12-24).

Claims 14-15 add into claim 1 “the necessary perceptual speed of the at least one object is such that movement of a point on the object along the plane of the expected viewers eyes occurs at a rate of about at least three percent of the size of the object, measured through that plane, per second relative to the background; wherein the necessary perceptual speed of the at least one object is about at least five percent

of the size of the object, measured through that plane, per second relative to the background” which McNelley does not explicitly teach. However, given McNelley’s synchronization of video content and the EACB states (McNelley, column 10, lines 12-24), it would have been obvious to set up a perceptual speed in a certain range because Applicant’s disclosure does not provide any specific advance for such set up, therefore, such set up is regarded as a mere design choice .

Claim 16 adds into claim 1 “the necessary perceptual speed of the at least one object is rotational movement of the object about an axis not exceeding 40 degrees from an axis orthogonal to the plane of the expected viewers eyes” which McNelley does not explicitly teach. However, given McNelley’s synchronization of video content and the EACB states (McNelley, column 10, lines 12-24), it would have been obvious to set up a perceptual speed in a certain range because Applicant’s disclosure does not provide any specific advance for such set up, therefore, such set up is regarded as a mere design choice.

Claims 10-12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

In claim 10 the allowable feature is “a mocking stage is constructed to recreate the light sources and objects identified and characterized, the object is placed on said mocking stage in front of a chromakey backdrop and the video of the object is captured and the background removed by a chromakey process to obtain the captured video.”

In claim 11, and its dependent claim 12, the allowable feature is “the identified and characterized lights and objects are employed in computer animation system to light a model of the at least one object to be displayed and the captured video is obtained by rendering a video image of the at least one object in said computer animation system.”

Claim 1 is objected to because of the following informalities: “and/or” (line 6) is indefinite. Appropriate correction is required.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phu K. Nguyen whose telephone number is (571) 272 7645. The examiner can normally be reached on M-F 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Razavi can be reached on (571) 272 7664. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Phu K. Nguyen
September 16, 2007


PHU K. NGUYEN
PRIMARY EXAMINER
GROUP 2300